

Receiving Report

Date: 13/11/13
 Supplier: Thyssen

Batch No: M/27469
 Dart P/O: 21980

Packing Slip: Yes ☒ No ☐
 Invoice: Yes ☐ No ☒
 Receipt: Cash ☐ Cr ☒

Release Note Attached: Yes ☒ No ☐ N/A ☐
 Waybill Attached: Yes ☐ No ☒
 Shipment Complete: Yes ☒ No ☐ N/A ☐
 QC6 Inspection OK 13/11/14 N/A ☐
 Work Order N/A ☒

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12

[Signature]

Production/Admin: 13/11/13
 Date:
 Received/Costing:
 Initial: [Signature]

Location

Purchase Order Receipt Listing

Thursday, November 14, 2013 8:33:47 AM

All amounts are calculated in domestic currency.

All Vendors PO ID PO21995 All Receipt Dates All Line Item Types
All Item ID/GL/WOs All Rec. Employees All Currencies
Grouped by Vendor ID

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M/ Stock U/M	Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
Vendor ID \ Vendor Name VC-COP001 Thyssenkrupp Materials CA Ltd											
PO21995	1		M6061T6R1.500 f		11/15/2013	11/13/2013	24.0000	\$3.95	0.0000	0	\$94.75
CAD	No		6061-T6 Round Bar 1.50	f	24.0000	DES102		\$94.75	0.0000	0	
			m127464								
	3		M6061T6B0.250X04. f		11/15/2013	11/13/2013	12.0000	\$2.40	0.0000	0	\$28.77
	No		6061-T6 Bar .250 x 4.00	f	12.0000	DES102		\$28.77	0.0000	0	
			m127464								
	4		M6061T6B0.500X02. f		11/15/2013	11/13/2013	12.0000	\$2.40	0.0000	0	\$28.77
	No		6061-T6 Bar .500 x 2.00	f	12.0000	DES102		\$28.77	0.0000	0	
			m127464								
	5		M6061T6B0.500X10. f		11/15/2013	11/13/2013	48.0000	\$10.70	0.0000	0	\$513.83
	No		6061-T6 Bar .500 x 10.00	f	48.0000	DES102		\$513.83	0.0000	0	
			m127464								
	6		M6061T6B2.750X03. f		11/15/2013	11/13/2013	8.0000	\$36.59	0.0000	0	\$292.69
	No		6061-T6 BAR 2.75 X 3.75	f	8.0000	DES102		\$292.69	0.0000	0	
			m127464								
	7		M6061T6S.125 sf		11/15/2013	11/13/2013	96.0000	\$4.23	0.0000	0	\$406.00
	No		6061-T6 .125 Sheet	sf	96.0000	DES102		\$406.00	0.0000	0	
			m127464								
	8		M303R0.750 f		11/15/2013	11/13/2013	60.0000	\$2.73	0.0000	0	\$163.99
	No		303 Round Bar 0.750 f	f	60.0000	DES102		\$163.99	0.0000	0	
			m127464								

Purchase Order ID/ Curr Type	Line Nbr/ Insp Req	Project ID	Reference/ Description/ Cert Std	PO U/M/ Stock U/M	Required Date Required Qty	Recv Date/ Recv Emp	Recv Qty (PO U/M)	Cost Per Unit/ Recv Value	Inspected Qty/ Rejected Qty (PO U/M)	MRB Qty/ MRB Reject Qty	Book Amt
VendorID\Vendor Name VC-COP001 Thyssenkrupp Materials CA Ltd											
PO21995	9		M303H0.500	f	11/15/2013	11/13/2013	12.6000	\$2.48	0.0000	0	\$31.27
CAD	No		303 HEX BAR .500	f	12.0000	DESJ02		\$31.27	0.0000	0	
			m127464								
Total Received Quantity:											
Total Qty to Inspect (PO U/M):											
Total Reject Quantity:											
Total Receipt Value:											
Total Balance Due Quantity:											
272.6000											
0.0000											
0.0000											
\$1,560.07											
0.0000											

B I L L O F L A D I N G

Ship From: THYSSENKRUPP MATERIALS NA
2821 LANGSTAFF ROAD
CONCORD, ONTARIO L4K 5C6
Tel: 905 669 9444 Fax: 905-738-9033

No: PEC 849931
Ship Date 22 Nov 13 at 13:23 From PFW
Probill
Via VIM TRANSFER
FOB CONCORD
Frt PREPAID
Route 0- 0 Manifest
Vhcle Trailer
Slp STAN IVERS (905-532-1350)
Sold To: (20115)
DART AEROSPACE
1270 ABERDEEN ST
HAWKESBURY, ON K6A 1K7

Ship To: (1)
DART AEROSPACE
1270 ABERDEEN ST
HAWKESBURY, ON K6A 1K7
Tel: 613-632-9577 Fax: 613-632-1053

B I L L O F L A D I N G

1) Our Order PEC-623889- 1 Your PO # 21995
ALUMINUM FLAT BAR 6061-T6511

.250" x 4.00" X 144.0000"

Heat Number
2BU347

Tag No
234791

Quantity
12 FT

PCS
1

Wt LBS
13

MTR

2) Our Order PEC-623889- 2 Your PO # 21995
ALUMINUM FLAT BAR 6061-T6511

.50" x 2.00" X 144.0000"

Heat Number
Z00264054

Tag No
234792

Quantity
12 FT

PCS
1

Wt LBS
14

MTR

3) Our Order PEC-623889- 3 Your PO # 21995
ALUMINUM FLT BAR ECONOPLT 6061-T6511

.500" X 10.00" X 144.0000"

Heat Number
Z00191031

Tag No
234793

Quantity
48 FT

PCS
4

Wt LBS
287

MTR

4) Our Order PEC-623889- 4 Your PO # 21995
ALUMINUM PLATE 6061-T651

2.750" THICK X 3.7500" X 96.0000"

Heat Number
S12040359

Tag No
234974

Quantity
2.50 SFT

PCS
1

Wt LBS
100

MTR

5) Our Order PEC-623889- 5 Your PO # 21995
ALUMINUM SHEET 6061 T6

.1250 Nom X 48.0000" X 96.0000"

Heat Number
33566/01/00

Tag No
234892

Quantity
96.00 SFT

PCS
3

Wt LBS
168

MTR

Page: 1Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ETRE
RAPPORTEES IMMEDIATEMENT

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

13/11/13 1 planche R500
1 palette R117
2 planche R550
1 planche R550
1 planche R506

SHIP FROM: THYSSENKRUPP MATERIALS NA
2821 LANGSTAFF ROAD
CONCORD, ONTARIO L4K 5C6
Tel: 905 669 9444 Fax: 905-738-9033

SHIP DATE 12Nov13 at 13:23 From PFW
Probill
Via VIM TRANSFER
FOB CONCORD
Frt PREPAID
Route 0- 0 Manifest
Vhcle Trailer
Slp STAN IVERS (905-532-1350)
Sold To: (20115)
DART AEROSPACE

SHIP TO: (1)
DART AEROSPACE

B I L L O F L A D I N G

6) Our Order PEC-623889- 6 Your PO # 21995
STAINLESS STEEL ROUND BAR 303 STAINLESS
.750" DIA X 144.0000"

Heat Number	Tag No	Quantity	PCS	Wt LBS
J5F0	234794	60 FT	5	91

7) Our Order PEC-623889- 7 Your PO # 21995
STAINLESS STEEL HEX BAR 303 STAINLESS
.50" HEX X 150.0000"

Heat Number	Tag No	Quantity	PCS	Wt LBS
256895	234896	12 ' 6.0000 "	1	10

8) Our Order PEC-623889- 8 Your PO # 21995
ALUMINUM ROUND BAR 6061-T6511
1.50" DIA X 144.0000"

Heat Number	Tag No	Quantity	PCS	Wt LBS
Z00262107	234795	12 FT	1	25
21446222	234796	12 FT	1	26
Total:		24 FT	2	51

TOTAL:	Tags	PCS	LBS
	9	18	734

Heat Number
21446222
256895
2BU347
33566/01/00
J5F0
S12040359
Z00191031
Z00262107
Z00264054

*** Chemical Analysis ***

Page: 2Continued

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ETRE
RAPPORTEES IMMEDIATEMENT
ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY
RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

B I L L O F L A D I N G

Ship From:
THYSSENKRUPP MATERIALS NA
2821 LANGSTAFF ROAD
CONCORD, ONTARIO L4K 5C6
Tel: 905 669 9444 Fax: 905-738-9033

No: PEC 849931
Ship Date 12Nov13 at 13:23 From PFW
Probill
Via VIM TRANSFER
FOB CONCORD
Frt PREPAID
Route 0- 0 Manifest
Vhcle Trailer
Slp STAN IVERS (905-532-1350)
Sold To: (20115)
DART AEROSPACE

Ship To: (1)
DART AEROSPACE

B I L L O F L A D I N G

MILL TEST REPORTS, PACKING SLIPS ARE TO SENT
WITH MATERIAL AND FAXED TO THE CUSTOMER PRIOR
TO SHIPPING.

ATTN: CHANTAL/LINDA

** ALL PACKING SLIPS MUST HAVE THE HEAT NUMBER **
** REFERENCED ON IT **

TOTAL 4 BDLs, 2 SKIDS G.W. 1003 LBS

ITEMS (1,2,3,6) BDL
ITEM (4) SKID
ITEM (5) SKID
ITEM (7) BDL
ITEM (8) 2 BDLs

*CUSTOMER PICK-UP HRS AT THYSSENKRUPP MATERIALS NA
CONCORD, ONT.* *** 9:00 AM TO 4:00 PM ***
**** TEL. 800-926-2600 ****

* WE STOCK STAINLESS STEEL *
* PLEASE LET US QUOTE YOUR NEXT REQUIREMENT *

***PLEASE NOTE A \$25.00 ENERGY SURCHARGE WILL BE
ADDED TO EVERY ORDER.***

Page: 3 Last

TOUTES ERREURS ET/OU MARCHANDISES MANQUANTES DOIVENT ETRE
RAPPORTEES IMMEDIATEMENT

ERRORS OR SHORTAGE MUST BE REPORTED IMMEDIATELY

RETOUR DE MARCHANDISES AVEC NOTRE NUMERO D'APPROBATION SEULEMENT
MERCHANDISE MAY NOT BE RETURNED WITHOUT OUR APPROVAL NUMBER

REÇU EN BONNE CONDITIONS / RECEIVED IN GOOD CONDITION

TVQ/QST# 1017327981 TQ001 TPS/GST TVH/HST # 140223934 RT0001

DATE

THYSSENKRUPP MATERIALS NA

PO/Rel 21995

DART AEROSPACE
ALUMINUM FLAT BAR 6061-T6511
250" x 4.00" x 144.0000"
PART NO.

We certify that this is a true copy of the report
furnished by the producer of the metal, or data
resulting from tests made in approved labs.

Signed by: _____

BL PEC-849931-001

12Nov13
Pg 1/1

Certificate of Mill Test Results



TEL: (416) 745-4444 FAX: (416) 745-0925 1-800-668-7210
411 CHRISLEA ROAD, WOODBRIDGE, ONTARIO, CANADA L4L 8N4
<http://www.extrudex.com>

MILL TEST ASTM B221-12

BILL TO THYSSENKRUPP MATERIALS NA SHIP TO THYSSENKRUPP MATERIALS NA SO DESCRIPTION 250"x4" FB	Cert Code: 1 CUSTOMER PO PEC-250219 CUSTOMER PART NUMBER 1-250-4000	DATE OF SHIPMENT 8/6/2013	EXTRUDEX ORDER NO. 159754 - 1 MADE IN CANADA	MANIFEST NO. 292362
PART DESCRIPTION 6061		TEMPER T6511	SALESMAN FORBES DODWELL	
CERIFICATION MILL TEST ASTM B221-12				

Mechanical Properties

Lot	Alloy	Test Date	Ultimate Tensile Strength (KSI)	Yield Strength (KSI)	Percent Elongation	Hardness	Conductivity
A 11	6061	Jul/26/13	44.4	41.5	14.50	90.6, 91.2, 90.9	

Chemical Composition

Cast Number	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	B	Zr	Bi	Pb	Sn	Sr	Co	Al	Other
A 11 2BU347 6061	0.63	0.15	0.22	0.03	0.30	0.07	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Remainder

We certify that the following extrusions have been quality inspected/tested and conforms to required dimensional and temper specifications.

David Netaile
Quality Control Manager

1 - CUSTOMER COPY

MILL TEST ASTM B221-12

THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511

.50" x 2.00" X 144.0000"

PART NO.

PO/Rel 21995

We certify that this is a true copy of the report
furnished by the producer of the metal, or data
resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-849931-002

12Nov13

Signed by: 

Pg 1/2

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
5205 KAISER DRIVE
KALAMAZOO, MI 49048

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CUSTOMER PO NUMBER: PEC-245942-2		CUSTOMER PART NUMBER: ALREC00800		PRODUCT DESCRIPTION: .500 X 2.000 SC RECT BAR	
KAISER ORDER NUMBER: 637564	LINE ITEM: 002	SHIP DATE: 03/05/2013	KAISER LOT NUMBER: Z00264054	ALLOY: 6061	TEMPER: T6511
WEIGHT SHIPPED: 1016.000 LB	QUANTITY: 72.000 PCS	B/L NUMBER: 605678	DIA/DIA/THKNS: 	WIDTH: 	LENGTH: 12.000 FT
SHIP TO: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA			SOLD TO: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA		

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
Z00264054	0001	1	49.2	46.3	14.6	RE 95	N/A	N/A
Z00264054	0001	2	48.8	46.3	15.8	RE 97	N/A	N/A
Z00264054	0001	3	49.4	45.8	16.6	RE 94	N/A	N/A
Z00264054	0001	4	47.2	44.7	16.0	RE 90	N/A	N/A
Z00264054	0001	5	48.5	45.8	16.1	RE 94	N/A	N/A
Z00264054	0001	6	48.6	45.7	16.2	RE 93	N/A	N/A
Z00264054	0001	7	49.2	46.8	15.8	RE 93	N/A	N/A
Z00264054	0001	8	49.2	46.9	15.4	RE 95	N/A	N/A
Z00264054	0001	9	48.3	45.7	16.9	RE 96	N/A	N/A
Z00264054	0001	10	48.7	46.4	17.0	RE 97	N/A	N/A
Z00264054	0001	11	48.3	45.5	16.7	RE 94	N/A	N/A
Z00264054	0001	12	46.6	44.2	17.0	RE 93	N/A	N/A
Z00264054	0001	13	48.4	45.7	16.2	RE 92	N/A	N/A
Z00264054	0001	14	50.0	47.3	15.8	RE 91	N/A	N/A
Z00264054	0001	15	48.9	46.5	13.4	RE 97	N/A	N/A
Z00264054	0001	16	47.3	44.4	17.6	RE 94	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.30	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
102418	.71	.26	.22	.08	.94	.08	.04	.02	.00	.00	.00	.01	.03

Applicable Requirements:

ASTM-B221-12 STENCILED ASME-SB221 1998 SECT II AMS-QQ-A-200/8 (2007) UNS#A96061
(T6511 also conforms to T6-not applicable to other tempers)

Plant Serial: 00080419
Kaiser Order Number: 637564
Line Item: 002

THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM FLAT BAR 6061-T6511

.50" x 2.00" X 144.0000"

PART NO.

PO/Rel 21995

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-849931-002

12Nov13

Signed by: _____

Pg 2/2

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
5205 KAISER DRIVE
KALAMAZOO, MI 49048

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILITZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Calvin Latting, Quality & Technology Manager

Calvin Latting

Plant Serial: 00080419
Kaiser Order Number: 637564
Line Item: 002

THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM FLT BAR ECONOPLT 6061-T6511

.500" X 10.00" X 144.0000"

PART NO.

PO/Rel 21995

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-849931-003

12Nov13

Signed by: 

Pg 1/1

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
5205 KAISER DRIVE
KALAMAZOO, MI 49048

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CUSTOMER PO NUMBER: PEC-252120-4		CUSTOMER PART NUMBER: W60/STK		PRODUCT DESCRIPTION: .500 X 10.000 PRECISION WIDE BAR	
KAISER ORDER NUMBER: 652175	LINE ITEM: 004	SHIP DATE: 10/01/2013	KAISER LOT NUMBER: Z00191031	ALLOY: 6061	TEMPER: T6511
WEIGHT SHIPPED: 1692.000 LB	QUANTITY: 24.000 PCS	B/L NUMBER: 607234	DIAM/DIAF/THKNS: 	WIDTH: 	LENGTH: 12.000 FT
SHIP TO: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA			SOLD TO: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA		

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
Z00191031	0001	1	47.8	13.7	13.5	RE 94	N/A	N/A
Z00191031	0001	2	46.5	42.7	13.2	RE 94	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
102765	.72	.29	.24	.09	.94	.09	.04	.02	.00	.00	.00	.01	.03

Applicable Requirements:

ASTM-B221-13 STENCILED ASME-SB221 1998 SECT II AMS-QQ-A-200/8 97(R07) UNS#A96061
(T6511 also conforms to T6-not applicable to other tempers)

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA

MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILITZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Timothy K. Fargo, Quality & Technology Manager



Plant Serial: 00107861

Kaiser Order Number: 652175

Line Item: 004

DART AEROSPACE

ALUMINUM SHEET 6061 T6
 .1250 Nom X 48.0000" X 96.0000"
 PART NO.

PO/Rel 21995

We certify that this is a true copy of the report
 furnished by the producer of the metal, or data
 resulting from tests made in approved labs.

Signed by: 

BL PEC-849931-005

12Nov13

Pg 1/2

MILL TEST REPORT

TA CHEN INTERNATIONAL, INC.

This MTR contains 2 pages (Page# 1)

Customer: COPCON PO#:PEC-252758 SO#:PR3750

MTR#:AGCL2132.GIF

Item: .12548966061T6 Bundle:6414740004 Heat#:33566/01/00



AGCL2132

Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate – mill certificate

Nr.: 85272626 03 / 4

Rev. 0

Seite / page: 1 von / of 2

Datum / date: 2012 07 24

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

Auftraggeber / customer:
 TA CHEN International Inc.
 5855 Obispo Avenue
 LONG BEACH CA 90805
 USA

Wareneempfänger / consignee:
 Ta Chen International, Inc.
 Los Angeles
 6979 Cherry Ave.
 LONG BEACH CA 90805
 USA

Endkunde, Bestell-Nr. / Your cust., ord. no.:

Bestell Nr. / order no.: N02848
Datum / date: 2012 05 08
Auftragsbest. Nr. / order confirm. no.: 641474
Datum / date: 2012 05 10
Lieferschein Nr. / delivery note: 85272626
Datum / date: 2012 07 31
Akkreditiv Nr. / letter of credit no.:

Produkt/product

Form / form:
Werkstoff / material: 6061
Zustand / temper: T6
Dim. / dim: [inch]: 0,125x48,00x96,00
Kundenartikel-Nr / customer article no.:
 .12548966061T6/AM

Bedingungen/terms

Techn. Lieferbedingungen / techn. spec.:
 AMS-QQ-A-250/11, 03.1997
 ASTM B 209 - 10
 AMS 4027N, 07.2008
 ASME SB-209, 2011a

Sondervorschrift / special terms:

AB-Pos. ord.-item.	BNr/Los/Teillos Lot/No./Part	Guss Nr. cast no.	Werkstoff material	Kollo packno.	Gewicht netto weight net	Stk. pcs.
03	32430/02/00	01/0050525/2	6061.1	6414740003	3456,79 lbs	63
03	33566/01/00	01/0050877/2	6061.1	6414740004	4003,527 lbs	73
03	33566/01/00	01/0050877/2	6061.1	6414740005	4014,55 lbs	73

Chemische Zusammensetzung / chemical composition: [%] Gewichtsanteile / weight proportion (OES)

Guss Nr. / cast no.	AMAG designation	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti
01/0050525/2	6061.1 actual	0,65	0,48	0,21	0,10	0,88	0,18	0,01	0,04	0,06
01/0050877/2	6061.1 actual	0,77	0,44	0,23	0,12	0,93	0,10	0,01	0,02	0,05

AMAG rolling GmbH, Postfach 32, A-5282 Ranshofen, Österreich – www.amag.at
 AMAG rolling GmbH, P.O. Box 32, A-5282 Ranshofen, Austria – www.amag.at

MILL TEST REPORT

TA CHEN INTERNATIONAL, INC.

This MTR contains 2 pages (Page# 2)

Customer: COPCON PO#:PEC-252758 SO#:PR3750

MTR#:AGCL2133.GIF

Item:12548966061T6 Bundle:6414740004 Heat#:33566/01/00



AGCL2133

Abnahmeprüfzeugnis 3.1 (EN 10204) Inspection certificate – mill certificate

Nr.: 85272626 03 / 4

Rev. 0

Seite / page: 2 von / of 2

Datum / date: 2012 07 24

Zertifiziert nach / certified to ISO 9001, ISO/TS 16949, EN/AS 9100, ISO 14001, NADCAP

Zugversuch / Tensile test									
BNr/Los Lot/No.	Zustand temper	Richtung direction			Rm [ksi]	Rp0.2 [ksi]	A2" [%]		
32430/02	T6	LT			48.2	42.5	14		
32430/02	T6	LT			48.0	42.6	16		
32430/02	T6	LT			47.7	42.4	14		
32430/02	T6	LT			47.7	42.4	14		
32430/02	T6	LT			47.6	42.4	16		
32430/02	T6	LT			47.7	42.4	14		
32430/02	T6	LT			47.9	42.4	14		
32430/02	T6	LT			48.0	42.5	13		
32430/02	T6	LT			47.6	42.2	14		
33566/01	T6	LT			49.7	43.4	15		
33566/01	T6	LT			48.6	42.4	15		
33566/01	T6	LT			48.3	42.1	15		
33566/01	T6	LT			48.2	42.1	15		
33566/01	T6	LT			48.2	42.1	15		
33566/01	T6	LT			48.7	42.5	15		
33566/01	T6	LT			48.4	42.2	15		
33566/01	T6	LT			48.3	41.9	15		
33566/01	T6	LT			48.2	42.2	15		

Es wird bestätigt, dass die Lieferung geprüft wurde und den Vereinbarungen bei der Bestellung entspricht.
We hereby certify that the material described above has been tested and complies with the terms of the order contract.

Werkssachverständiger / factory specialist	E-Mail / e-mail
Josef Klampfer	j.klampfer@amag.at

Herstellerland: Österreich / goods origin: The goods are of Austrian origin.
Maschinell erstellt - Gültig ohne Unterschrift / Automated - valid without being signed.

AMAG rolling GmbH, Postfach 32, A-5282 Ranchhofen, Österreich - www.amag.at
AMAG rolling GmbH, P.O. Box 32, A-5282 Ranchhofen, Austria - www.amag.at

THYSSENKRUPP MATERIALS NA

DART AEROSPACE
STAINLESS STEEL ROUND BAR 303 STAINLESS
.750" DIA X 144.000"
PART NO.

PO/Rel 21995

We certify that this is a true copy of the report
furnished by the producer of the metal, or data
resulting from tests made in approved labs.

Signed by: 

Certificate of Mill Test Results

BL PEC-849931-006

12Nov13
Pg 1/1



6870 HIGHWAY 42 EAST

METALLURGICAL TEST REPORT

NORTH AMERICAN STAINLESS
6870 HIGHWAY 42 EAST
GHENT, KY 41045

Certificate: 877584 1 Mail To:

Customer: 007206 001 THYSSENKRUPP MATERIALS
2821 LANGSTAFF ROAD
CONCORD, OH 44036

Ship To:

THYSSENKRUPP MATERIALS
2821 LANGSTAFF ROAD
CONCORD, OH 44036

Date: 10/07/2013 Page: 1

Steel: 303

Finish: CD

Your Order: PEC252503

NAS Order: IN 0176665 01

Corrosion:

PRODUCT DESCRIPTION:

Round Bar, Annealed, Cold Draw
ASTM A582/12 EN 10204 3.1, ASTM A484/11
AMS 5640U TYPE 1, Q08-764B CONDITION A
SOLUTION ANNEAL TEMP 1900F MIN

REMARKS:

COMPLIES W/REQUIREMENTS OF DEAR 252.225-7014A-1 EU DIRECTIVE
2011/65/EU. ROHS. EAF+AD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Std #	Diameter	Size	Weight	Length	Mark	Pieces	Commodity Code
BF7383 3		.7500		1.216	144.00	1	1	

CHEMICAL ANALYSIS

CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

Chemical Analysis per ASTM A751/08

HEAT	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
J5F0	US	.0300	.1765	17.1805	.2935	1.8575	.2955	.0439	8.3940	.0335

S % SI %
.3570 .4810

MECHANICAL PROPERTIES

Product Id	Id	HB	2YS	UTS	RA	Elong
BF7383 3	01	No.	KSI	KSI	%	% 4D
	RL	204.00	84.61	104.71	35.07	29.83

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy
of the test methods used, the material meets the specifications stated. These results relate only to the items
tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM PLATE 6061-T6S1
2.750" THICK X 3.7500" X 96.0000"
PART NO.

PO/Rel 21995

We certify that this is a true copy of the report
furnished by the producer of the metal, or data
resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-849931-004

12Nov13

Signed by: _____ Pg 1/1

MILL TEST CERTIFICATE	No: 7674	CERTIFIED SRAC-ICMnet	vimetco alro SLATINA
	Date: 5/10/2012	ISO 9001/2008 No. 10/4-2011	

CUSTOMER : OLBERT METAL SALES LIMITED

CONTRACT/ORDER : 1787

BILL OF DELIVERY : 80130576

TRUCK/CONTAINER : FBLU 4104623

MATERIAL : ALUMINUM PLATES

ALLOY : 6061

DIMENSIONS(mm) : 70058392 - - 2.75"THX48.5"WDX144.5"LT
70058393 - - 3"THX48.5"WDX144.5"LT
70058394 - - 3"THX60.5"WDX144.5"LT

TEMPER: T661

ACCORDING TO : ASTM B209; AMS 4027N; ANSI H35.2; ASME SB209

ACTUAL MECHANICAL PROPERTIES				1 MPa = 1 N/mm2 = 0.145 ksi = 0.102 kgf/mm2								
1 lbs = 0.4536 kg			UTS		YTS	Elong. %	Hardness					
			KSI		KSI	50mm	HB					
			min.	max.	min.	max.	min.	min.				
Specified values:			42		35	6						
LOT / BATCH	CASE	NET WEIGHT lbs	Measured values:									
70058392 S12040359	152241;152777	3,853.683	48.8 47	41.6 41.9	16 17							
70058393 S12040360	152773;152771	4,193.196	46.4 45.4	40.2 39	15 15							
70058394 S22040441	154411	5,251.415	46 46.4	40.7 41	15 16							
ACTUAL CHEMICAL ANALYSIS %												
BATCH	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Ga	V	Al
S12040359	0.69	0.43	0.23	0.058	1.03	0.069	0.005	0.058	0.012	0.008	0.013	REM.
S12040360	0.69	0.4	0.28	0.045	1.05	0.062	0.004	0.087	0.02	0.008	0.013	REM.
S22040441	0.67	0.47	0.21	0.078	1	0.064	0.005	0.1	0.012	0.008	0.013	REM.
Acs. Standard	Min.	0.4	0.15		0.8	0.04						REM.
	Max.	0.8	0.7	0.4	0.15	1.2	0.35	0.05	0.25	0.16	0.05	0.05
Remarks:					Other-Each-Max.: 0.05			Others Total- Max.: 0.15				

REMARKS:

ACCORDING TO: ASTM B209-2010; AMS 4027N:2008; ANSI H35.2-2004; ASME SB209:2007

* Typical value, for information only.

We hereby certify that the material detailed herein has been produced and tested according to the requirements of the relevant specification and/or order. Keep in dry conditions, without large temperature variations. The differences between metal and air must be maximum 11 degrees C.

Also we certify that the material respects HG 1022 and does not endanger life, health, job security (if handled properly) have no negative impact on the environment.

According to EN 10204:2004 3.1

QUALITY CONTROL DEPT.

S.R. ALRO S.A. SLATINA
Punct de lucru Slatina
Str. Milcovului, Jld. C11
Sec. C.C. Laborator
Al Proiectat

ALRO S.A. No.114, Pitesti Street Phone (40) 0249 435 117; 0249 432 856 alro@alro.ro
230048-Slatina-ROMANIA Fax (40) 0249 411 487; 0249 415 992 www.alro.ro

cod FI/PO-051/Rev.2/2011

Acciaierie Valbruna S.p.A.



QUALITY MANAGEMENT SYSTEM
 CERTIFIED BY LLOYD'S REGISTER

36100 VICENZA (Italia) - Viale della scienza, 25 z.L.
 Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Clienti / Destinatari/Purchaser/Cler
 VALBRUNA STAINLESS INC.
 2400 TAYLOR STREET WEST
 48801-FORT WAYNE, IN 48801-US

Produttore: ACCIAIERIE VALBRUNA S.P.A.
 Hersteller/Hersteller producer

Stato di fornitura: - Annealed Cold Drawn
 Lieferzustand/Delivery state/État de livraison

Specifiche:
 Anforderungen / Requirements / Exigences

VSI 0 303 HS A, OF
 AMS 5840 U TYPE1 A
 ASTM A320 2011 B8F (1)
 MIL-S-882 B/1 303

AISI 303
 ASME SA320 2010 B8F (0)
 ASTM A370 2011A
 QQ-S-784 B/2 303 A

(0) SEC. II PT. A 2010 Edition ADD. 2011A
 (1) Chemical analysis only.

Avviso di Spedizione: D-VH2015562
 Lieferschein/Frachtanweisung

Ordine nr. 32118 5400128744-R02
 Bestell-/Vorder/Commande

Tipo di Elaborazione: E+AOD
 Erzeugnisverfahren/Manufact process/Mode d'elaboration

CERTIFICATO DI COLLAUDO ABNAHMEPRUEFZEUGNIS INSPECTION CERTIFICATE CERTIFICAT DE RECEPTION EN 10204 (2004) , 3.1

Certificato nr: MEST201836/2012/
 Prüfzettel/Prüfzettel

Conferma ordine nr: E112000063
 Bestell-/Vorder/Commande

Marchio di Fabbrica:
 Zeichen des Unternehmens
 Trade mark
 Signe de l'usine: producer



Punzone del Collaudo:
 Stempel des Werkstoffverständigen
 Inspector's stamp/Prüfung de l'inspecteur



AMS 5840 U S30300 A
 ASTM A314 2003 S30300
 ASTM A582 2005 S30300 A

Qualità: T-303 MAXX
 Werkstoff/Grade/Qualité

Marca: MV188ZHS
 Hersteller/Hersteller

Tolleranza: ASTM A484-10
 Toleranz/Likance/Tolérance

Punzonatura: S03HS
 Kennzeichnung/Marking/Marquage

Pos. nr. Pos. nr. Item nr. Nr. de poste	Oggetto Designation Produit designation Design. du produit	Dimensioni - in Dimensions Dimension	Lunghezza - in Length Longueur	Colata Casting Fusée	Pezzi Quantity Pièces	Peso - LB Weight Poids	Lotto nr. Lot nr. Lot nr.
0050	Hexagon	0,5000	150 / 152	256895		4,277	135100010

TEST ALLO STATO DI FORNITURA Test on delivery condition Prüfung auf Lieferzustand Prüfzettel auf Material bei wie anverpackt									
TEST	Prove/Provenza Lieferanten/Origin Lieferanten/Origin Lieferanten/Origin	°F	Prove/Provenza Lieferanten/Origin Lieferanten/Origin Lieferanten/Origin	Shrinkage Verformung Verformung	Shrinkage Verformung Verformung	Resistenza Zugfestigkeit Zugfestigkeit	Allungamento Zugdehnung Zugdehnung	Strizione Zugdehnung Zugdehnung	Resistenza Zugfestigkeit Zugfestigkeit
	Valori richiesti 1 Anforderungen/Required values Valeurs requises	min max							
A	12,5	68	L	86		109	39	51	252
TEST						min	max		
A	Grain size for ASTM E112						6		

Mechanical properties according to ASTM A370.

1) - lunghezza/length, 2) - spessore/thickness, 3) - larghezza/width

Analisi chimica

Chemische Zusammensetzung/Chemical Analysis/Analyse chimique

Colata Casting Fusée	min 0,030 max 0,050	0,30 1,00	1,50 2,00	17,00 18,00	0,60 1,00	1,00 1,50	8,00 10,00	0,10 0,20	0,20 0,30	0,000 0,000	0,000 0,000	0,000 0,000	0,000 0,000
C %	Si %	Mn %	Cr %	Mo %	Cu %	Ni %	Co %	P %	S %	Zr %			
256895	0,037	0,38	1,83	17,00	0,39	0,55	8,11	0,102	0,030	0,32	0,0032		

Produced without class I-II Ozone depleting substances.
 Solution heat treated free from continuous carbide network.
 Annealing temperature: 1940°F for 0.5 h/water.
 Micro and macro etch test: OK
 Material is DFARS Compliant

Sono state soddisfatte tutte le condizioni richieste
 Die gesamten Anforderungen sind erfüllt
 The material has been finished in accordance with the requirements
 Le matériels a été traité conformément aux exigences

Controllo antimescolanza: OK
 Vermeidungsmischung, spezifiziert/geschützt
 Antimixing test performed: OK
 Contrôle antimitage: satisfaisant

Controllo visivo e dimensionale: soddisfa le esigenze
 Sichtprüfung und Ausmessung: ohne Beanstandung
 Visual inspection and dimensional check/satisfactory
 Contrôle visuel et dimensionnel: satisfaisant

Metal and manufactured in Italy No welding or weld repair Material free from Mercury contamination
 We declare that the finished product is checked for radioactive contamination through Portal System when it leaves the production plant.
 The Quality Management System is Certified acc. Pressure Equipment Directive (97/23/EC) Annex 1, 4.3 by TÜV and LLOYD'S

Vicenza, 21/05/12

VD006
 (Name, MCE)

Il collaudatore di stabilimento / der Werkstoffverständiger / Works inspector / L'agent d'usine

M. Rizzotto

Pagina - 1 di 2

THYSSENKRUPP MATERIALS NA

DART AEROSPACE

STAINLESS STEEL HEX BAR 303 STAINLESS

.50" HEX X 150.0000"

PART NO.

PO/Rel 21995

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-849931-007

12Nov13

Signed by: _____ Pg 2/2

**Acciaierie
Valbruna S.p.A.**



QUALITY MANAGEMENT SYSTEM
CERTIFIED BY LLOYD'S REGISTER

36100 VICENZA (Italia) - Viale della scienza, 25 s.l.

Stab.: 39100 BOLZANO (Italia) - Via A. Volta, 4

Cliente / Customer/Purchaser/Client

VALBRUNA STAINLESS INC.

2400 TAYLOR STREET WEST

46801-FORT WAYNE, IN 46801-US

Produttore: ACCIAIERIE VALBRUNA S.P.A.

Hersteller/Manufacturer/Produkteur

Avviso di Spedizione: D-VH2015562

Lieferanmeldung/Shipping Adv./L.

Ordine nr: 32118 5400128744-R02

Bestell-/Your order/Commande

Stato di fornitura: - Annealed Cold Drawn

Lieferzustand/Delivery state/État de livraison

Tipo di Elaborazione: E+AQD

Erstellungserstellung/processing/Mode of elaboration

**CERTIFICATO DI COLLAUDO
ABNAHMEPRUEFZEUGNIS
INSPECTION CERTIFICATE
CERTIFICAT DE RECEPTION
EN 10204 (2004) , 3.1**

Certificato nr: MEST201836/2012/
Prüfung/Trade/Exam

Conferma ordine nr: EI12000063

Werk-/Our Order/Ref. nr.

Marchio di Fabbrica:

Zeichen des Unternehmens

Trade mark

Signe de l'usine/production

Firma del Collaudatore:

Stempel des Werkstätteneinsichtigen
Inspector's stamp/Plaque de l'inspecteur



Any act of tempering, modification, alteration, counterfeiting and/or falsification and/or any other action which modifies the contents of this test certificate shall constitute a violation of applicable civil and criminal laws. Acciaierie Valbruna shall protect its rights and interests before any competent court, authority and jurisdiction.

Maximal and/or Valplus grades/products are manufactured with ladle techniques to control composition, distribution, size and shape of non-metallic inclusions for improved machinability.

The supplied product conforms to requirements expressly requested by the purchaser and conforms to requirements specified by certified norms and standards. Should the product be used for more severe, critical and/or in any case different applications than those the material is generally intended for, any different and/or supplementary requirements shall be specifically demanded, at least, upon order of the Product by the Purchaser. Acciaierie Valbruna SpA shall not be responsible for any improper use of the Products.

Vicenza, 21/05/12

V00008

(Mod. MCE2)

Il collaudatore di stabilimento / der Werkstätteneinsichtiger / Works Inspector / L' agent d' usine

M. Rizzotto

Pagina - 2 di 2

THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511

1.50" DIA X 144.0000"

PART NO.

PO/Rel 21995

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Certificate of Mill Test Results

BL PEC-849931-008

12Nov13

Signed by: 

Pg 1/2

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
5205 KAISER DRIVE
KALAMAZOO, MI 49048

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CUSTOMER PO NUMBER: PEC-249330-1		CUSTOMER PART NUMBER: ALRD00339		PRODUCT DESCRIPTION: KAISERSELECT PRECISION ROD 1.500+/-0.005	
KAISER ORDER NUMBER: 645640	LINE ITEM: 001	SHIP DATE: 06/14/2013	KAISER LOT NUMBER: Z00262107	ALLOY: 6061	TEMPER: T6511B
WEIGHT SHIPPED: 1047.000 LB	QUANTITY: 42.000 PCS	B/L NUMBER: 606459	DIAM/DAF/THKNS: 	WIDTH: 	LENGTH: 12.000 FT
SHIP TO: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA			SOLD TO: THYSSENKRUPP MATERIALS NA 2821 LANGSTAFF ROAD CONCORD, ON L4K 5C6 CANADA		

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	ELONG%	HARDNESS	CONDUCT.	BEND
Z00262107	0001	1	54.2	52.1	18.1	RE 94	N/A	N/A
Z00262107	0001	2	53.4	51.1	17.1	RE 93	N/A	N/A
Z00262107	0001	3	53.6	51.3	17.0	RE 93	N/A	N/A
Z00262107	0001	4	54.3	52.2	17.7	RE 94	N/A	N/A
Z00262107	0001	5	54.0	51.4	17.7	RE 94	N/A	N/A
Z00262107	0001	6	54.0	51.9	17.4	RE 94	N/A	N/A
Z00262107	0001	7	53.5	50.5	17.3	RE 93	N/A	N/A
Z00262107	0001	8	54.7	52.6	17.4	RE 94	N/A	N/A
Z00262107	0001	9	54.0	51.8	17.6	RE 93	N/A	N/A
Z00262107	0001	10	54.0	51.8	17.1	RE 94	N/A	N/A
Z00262107	0001	11	53.9	51.6	17.3	RE 93	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	C.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	0.15
Minimum	C.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	0.00
102726	.75	.33	.29	.09	.95	.11	.08	.02	.00	.00	.00	.01	.04

Applicable Requirements:

PER ASTM-B221-13, STENCILED ASME-SB221 1998 SECT II PER AMS-QQ-A-200/8 (1997) UNS# A96061 MEETS ALL SPECIFICATION REQUIREMENTS FOR 6061-T6511/T6 ELEVATED MINIMUM MECHANICAL PROPERTIES AS FOLLOWS: UTS = 42.0 KSI MIN YIELD = 38.0 KSI MIN ELONGATION = 10.0% MIN

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILITZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

Plant Serial: 00094182

Kaiser Order Number: 645640

Line Item: 001

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511

1.50" DIA X 144.0000"

PART NO.

PO/Rel 21995

We certify that this is a true copy of the report
furnished by the producer of the metal, or data
resulting from tests made in approved labs.

BL PEC-849931-008

12Nov13

Signed by: _____ Pg 2/2

KAISER
ALUMINUM
FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
5205 KAISER DRIVE
KALAMAZOO, MI 49048



CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

Timothy K. Fargo, Quality & Technology Manager



Plant Serial: 00094182
Kaiser Order Number: 645640
Line Item: 001

THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6511

1.50" DIA X 144.0000"

PART NO.

PO/Rel 21995

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Certificate of Mill Test Results

BL PEC-849931-008

12Nov13
Pg 1/2

Sapa
Sapa Industrial Extrusions
53 POTTSVILLE STREET
CRITISSONA, PA
17929-0187

Sapa Extrusions Inc., a Subsidiary of Sapa AB

Invoice To Customer

THYSSENKRUPP MATERIALS NA INC

2821 LANGSTAFF ROAD

ATTN: ACCOUNT PAYABLE

CONCORD, ON - L4R-5C6

Ship To Customer

THYSSENKRUPP MATERIALS NA INC

2821 LANGSTAFF ROAD

CONCORD, ON - L4R5C6

Certified Inspection Report

Sales Order Number	Line No.	Customer PO	Cert Number	Page
1100622018	2	PEC-249472-002	SAPA785776	1 of 2
			Cert Creation Date	Cert Print Date
			20-JUN-13	20-JUN-13

Quantity Shipped	Date Shipped	Item No.	Item Description	Specification
1044 LB	20-JUN-13	Item No.	Extruded ACC-T-ROD	ASTM B221 REV 13
B/L		Item No.	1.500 DIA x 144.005	AMS-QQ-A-2008 REV 1997
439003		Item No. Rev	SAE J55351	ASME B221 REV 09
Delivery Id			FIN M-MILL	UNSP496061 REV
4438890			W/F 2.078 F 2 CS 1.5	SAE J454 REV
Customer Part No.			6061/T6511H	Meets 6061-T6511H, 6061 T6511 REV
1.5ER+			Making CONTINUOUS.	

COMPOSITION NOTE: The values for 'Others Easy' and 'Others Total' have met the limits as shown on this certified inspection report. Remainder is Aluminum.

Legal Statement
We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected, and tested in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material and the composition and mechanical properties shown on the face of this certification. Also, note that mercury is not a normal constituent in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certification is not to be reproduced in partial form without prior written approval of our Quality Assurance Dept.

Signature and Title
William T. Martin III
William Martin III
Tech/Quality Manager
20-JUN-13

Package Number	Lot Number	Quantity	FORM	Gross Weight	Net Weight
G12-PKG1972148	21446222	21	PCS	528	523
G12-PKG1972148	21446222	21	PCS	528	522
G12-PKG1972190	21446222	21	PCS	528	522

Alloy	Si		Fe		Cu		Mn		Mg		Cr		Zn
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
6061	0.40	0.80	—	0.70	0.15	0.40	—	0.15	0.80	1.20	0.04	0.35	0.25

THYSSENKRUPP MATERIALS NA

DART AEROSPACE

ALUMINUM ROUND BAR 6061-T6S111

1.50" DIA X 144.0000"

PART NO.

PO/Rel 21995

We certify that this is a true copy of the report furnished by the producer of the metal, or data resulting from tests made in approved labs.

Signed by:

Certificate of Mill Test Results

BL PEC-849931-008

12Nov13
Pg 2/2

sapa

Sapa Industrial Extrusions
53 FORTSMITH STREET
CRESSONA, PA
17929-0187

Certified Inspection Report

Sale Order Number 1100622018 Time No. 2 Customer P/O PEL-249477-002

Cert Number SAPA785716 Page 2 of 2
Cert Creation Date 20 JUN-13 Cert Print Date 20 JUN-13

Alloy	Ti		Bi		Pb		Others Each		Others Total	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
6061	—	0.15	—	0.05	—	0.05	—	0.05	—	0.15

Composition Results

Heat / Cast	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Bi	Pb	Others Each	Others Total
5031621	0.72	0.33	0.30	0.07	0.90	0.07	0.03	0.02	—	—	—	—
Heat / Cast	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Bi	Pb	Others Each	Others Total
5031817	0.70	0.32	0.31	0.05	0.92	0.06	0.02	0.02	—	—	—	—
Heat / Cast	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Bi	Pb	Others Each	Others Total
5031856	0.70	0.40	0.33	0.06	0.89	0.06	0.05	0.02	—	—	—	—

Mechanical Property - Test Limits

Test Type		UTS - L		TYS - L		PL - 40% elong	
T6		KSI		KSI		PCT	
Test Temper	Lot Number	# of Tests	MIN Value	MAX Value	MIN Value	MAX Value	MIN Value
T6S111	2146222	8	44.5	46.8	39.5	42.8	16.1

Cert Notes

Products manufactured with a T6S11 temper also meet T6 temper requirements.

Yield strength has been determined by the 0.2% offset method

All DART Finish Alloys produced at Sapa Extrusions comply with 0.4% Maximum Lead per RoHS, with the exception of 6062 alloy

In accordance with EN 10204 Inspection Certificate Type 3.1

Melted in the USA or Other Qualified Countries as Defined by DEAKS 225.872.1

Made in USA



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO21995**

Purchase Order Date 11/8/2013

PO Print Date 11/8/2013

Page Number 1 of 5

Order From :
VC-COP001
THYSSENKRUPP MATERIALS CA LTD
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"
TORONTO, ON M5W 5V8
CA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED
11/31/08

Contact Name
Vendor Phone 905 669 9444

Ship To Contact
Ship To Phone
Ship Via: Yours ppd
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA – (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	M6061T6R1.500	6061-T6 Round Bar 1.50	11/15/2013 Yes 11/15/2013		24.00 f	\$4.12	\$98.80
MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM ROUND BAR AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116 OR QQ-A-2008 OPR AMS-A-200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221							
Line Total:							\$98.80
2	M2024T3S.040	2024-T3 .040 sheet	11/15/2013 Yes 11/15/2013		192.00 sf	\$3.05	\$586.00
MATERIAL: 2024-T3 ALUMINUM SHEET AS PER QQ-A-250/4 OR AMS-QQ-A-250/4 OR AMS 4037 OR ASTM B209							
Line Total:							\$586.00

PO Instructions: NO: PEC ST-621584
NO: PEC ST-621370

Note:

11/8/2013



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO21995**

Purchase Order Date 11/8/2013

PO Print Date 11/8/2013

Page Number 2 of 5

Order From : VC-COP001
THYSSENKRUPP MATERIALS CA LTD
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"
TORONTO, ON M5W 5V8
CA


Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 905 669 9444

Ship To Contact
Ship To Phone


Ship Via: Yours ppd
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

3	M6061T6B0.250X04.000	6061-T6 Bar .250 x 4.00	11/15/2013 Yes 11/15/2013	12.00 f		\$2.50	\$30.00
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MATERIAL: 6061-T6/T651/T6510/T6511/T62 ALUMINUM BAR
AS PER QQ-A-225/8 OR AMS-QQ-A-225/8 OR AMS 4117/4128/4115/4116
OR QQ-A-200/8 OR AMS-A/200/8 OR AMS 4160 OR ASTM B211 OR ASTM B221

Line Total: **\$30.00**

4	M6061T6B0.500X02.000	6061-T6 Bar .500 x 2.00	11/15/2013 Yes 11/15/2013	12.00 f		\$2.50	\$30.00
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SAME AS ABOVE

Line Total: **\$30.00**

5	M6061T6B0.500X10.000	6061-T6 Bar .500 x 10.00	11/15/2013 Yes 11/15/2013	48.00 f		\$11.16	\$535.80
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SAME AS ABOVE

Line Total: **\$535.80**

PO Instructions: NO: PEC ST-621584
NO: PEC ST-621370

Note:

11/8/2013



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO21995**

Purchase Order Date 11/8/2013

PO Print Date 11/8/2013

Page Number 3 of 5

Order From : VC-COP001
THYSSENKRUPP MATERIALS CA LTD
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"
TORONTO, ON M5W 5V8
CA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 905 669 9444

Ship To Contact
Ship To Phone
Ship Via: Yours ppd
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

6	M6061T6B2.750X03.750	6061-T6 BAR 2.75 X 3.75	11/15/2013 Yes 11/15/2013	8.00 f	\$38.15	\$305.20
SAME AS ABOVE						

Line Total: \$305.20

7	M6061T6S.125	6061-T6 .125 Sheet	11/15/2013 Yes 11/15/2013	96.00 sf	\$4.41	\$423.36
MATERIAL: 6061-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209						

Line Total: \$423.36

8	M303R0.750	303 Round Bar 0.750	11/15/2013 Yes 11/15/2013	60.00 f	\$2.85	\$171.00
MATERIAL: AISI 303 SS ROUND BAR AS PER ASTM A582 NOTE: AISI 304/316 NOT ACCEPTABLE						

Line Total: \$171.00

PO Instructions: NO: PEC ST-621584
NO: PEC ST-621370

Note:

11/8/2013



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO21995**

Purchase Order Date 11/8/2013

PO Print Date 11/8/2013

Page Number 4 of 5

Order From : VC-COP001
THYSSENKRUPP MATERIALS CA LTD
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"
TORONTO, ON M5W 5V8
CA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 905 669 9444

Ship To Contact
Ship To Phone
Ship Via: Yours ppd
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA - (Free Carrier)

M/27469

9	M303H0.500	303 HEX BAR .500	11/15/2013 Yes 11/15/2013	12.00 f	<i>12.600</i>	\$2.59	\$31.05
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MATERIAL: AISI 303 SS HEX BAR AS PER ASTM A582

NOTE: AISI 304/316 NOT ACCEPTABLE

Line Total: \$31.05

10	M304B0.750X2.500	304 BAR .750 X 2.50	11/15/2013 Yes 11/15/2013	24.00 f		\$18.75	\$450.00
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MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE
AS PER ASTM A276 OR ASTM A240

NOTE: AISI 303 NOT ACCEPTABLE

Line Total: \$450.00

11	M303B1.000X03.000	303 BAR 1" X 3'	11/15/2013 Yes 11/15/2013	12.00 f		\$50.83	\$610.00
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MATERIAL: AISI 303 SS BAR AS PER ASTM A582

NOTE: AISI 304/316 NOT ACCEPTABLE

PO Instructions: NO: PEC ST-621584
NO: PEC ST-621370

Note:

11/8/2013



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO21995**

Purchase Order Date 11/8/2013

PO Print Date 11/8/2013

Page Number 5 of 5

Order From : VC-COP001
THYSSENKRUPP MATERIALS CA LTD
O/A VPK METAL- C/O T27540/PO BOX 4275,POSTAL"A"
TORONTO, ON M5W 5V8
CA

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 905 669 9444

Ship To Contact
Ship To Phone
Ship Via: Yours ppd
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB FCA – (Free Carrier)

Line Total: **\$610.00**

12	M304B0.625X3.000	304 BAR .625 X 3.00	11/20/2013	12.00	\$20.21	\$242.50
			Yes	f		
			11/20/2013			

MATERIAL: AISI 304/316 SS BAR OR AISI 304/316 SS PLATE
AS PER ASTM A276 OR ASTM A240

NOTE: AISI 303 NOT ACCEPTABLE

Line Total: **\$242.50**

PO Total: **\$3,513.71**

PO Instructions: NO: PEC ST-621584
NO: PEC ST-621370

Note: Pricing listed above is as per contract agreement between Dart Aerospace and the respective manufacturer.
No substitution or deviation without consent.
Certificate of Conformity or Material Certification required - YES NO
PST# 6122-5207

Change Nbr: 2 **Change Date:** 11/8/2013